Patient-Family-Nurse Intensive Care Unit Experience

A Roy Adaptation Model-Based Qualitative Study

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ABSTRACT

This qualitative phenomenological study examined the experiences of patients, their family members, and the nurses in the intensive care unit during critical illness. Five participants from each category participated in two interviews over a period of five months. Content analysis of the interview transcripts revealed five integrating common themes, each reflecting concepts from the Roy Adaptation Model (RAM). The ICU experience among all participants is interdependence. Adaptation in the ICU integrated family as a unit, physical care/comfort, physiological care and psychosocial support, resulting in transformation.

Keywords: Qualitative, phenomenological research, Roy Adaptation Model, ICU lived experience, patient-family-nurse experience.

Critical illness may be defined as a disease or state in which death is possible or imminent. It is a life-threatening event that comes without warning, allowing little time for families and patients to adjust (Titler, Cohen, & Craft, 1991). Classic studies have shown that critical illness in an intensive care unit (ICU) can result in a number of physiological and psychological changes to the patient and their family. A critical illness requiring a stay in a critical care unit has been identified as an experience having many stressors. The entire family is affected when a family member is in an ICU.

Nurses are key figures with whom critically ill patients and their family members interact. They are intimately involved with patients and families, and as such become a part of the family system during acute illness (Goodell & Hanson Harmon, 1999). The role that the family actually plays in the ICU may depend on the interactions and the types of relationships that develop between the nurses and the family of the critically ill patient associated with hospitalisation of their critically ill member. Nurses need to understand the family's experiences and identify families' needs associated with hospitalisation of critically ill family members in order to help them cope with this catastrophic event in their lives.

RELATED LITERATURE

Over 80 per cent of all Americans have been affected by critical illness (Leske, 1992). The Society of Critical Care Medicine (2006) reported that nearly 80 per cent of Americans will experience a critical illness or injury, either as a patient or as a family member or patient's friend. One-third to one-half of Americans spends time in an ICU during their final year of life, and one-fifth die there. Beyond death rates, suffering is common among ICU patients. Substantial dissatisfaction among relatives and friends of ICU patients indicates that suffering is not limited to the patients (Garland, 2005). Critical illness is a threat to the person's adaptive system: not only the patient's but the family's as well.

Critical illness of a family member creates a crisis and a sense of disequilibrium within the family system as established roles and functions are disrupted (Hepworth, Hendrickson, and Lopez, 1994). Role alterations, a sense of disorganisation, and fragmentation of families are common outcomes (Johnson, et al., 1995; Plowright, 1995). In addition, patients endure much stress (Halm, 1992). The stress of a family member's serious illness thus exerts a powerful influence on family function and that family's behaviour patterns can, in turn, influence patient outcomes (Hickey & Leske, 1992).

Aside from the effects of critical illness on both the patients and family members, caring for critically ill patients is complex and extremely expensive (Luce & Rubenfeld, 2002). The economic costs of ICU care are staggering. More than five million patients are admitted annually to ICUs in the United States. There are approximately 6,000 ICUs in the US, caring for 55,000 critically ill patients each day. The increase in patient demand for critical care services, caused by the ageing population and advances in medicine that extend life expectancy, has put a tremendous strain on critical care. Even though ICU patients occupy only 10 per cent of the inpatient beds, they account for almost 30 per cent of acute care hospital costs, amounting to USD180 billion annually in the US alone (Society of Critical Care Medicine, 2006). From 2000 to 2005, Critical Care Medicine (CCM) costs per day rose 30.4 per cent (from USD2698 to USD3518 per day). The increase in CCM costs is 44.2 per cent: from USD56.6 to USD81.7 billion. The percentage of the gross domestic product (GDP) used by CCM increased by 13.7 per cent (from 0.58 per cent to 0.66 per cent) (Halpern & Pastores, 2010). It is evident from these findings that critical illness in the ICU has a multitude of effects on both the patients and their families that also include the nurses and health care in general. Thus, it is important for nurses and other health professionals to better understand the meaning of the experience of critical illness in the ICU to the patients and their families.

PURPOSE AND SIGNIFICANCE OF THE STUDY

The phenomenon of interest for this study was the experience of patients, their family members, and the nurses during critical illness in the intensive care unit. The specific focus was the nurse's experience of the patient and their family members and consequently the experiences by the patients and the families of the nurses during critical illness in the ICU. The research questions that guided this study were (1) What are the patients' and their families' experiences of the nurse in an intensive care unit environment?, and (2) What are the nurses' experiences of the patients and families in an intensive care unit environment?

Past studies have examined the effects of critical illness on both the patient and family members. Research studies have also been done on nurses' ICU experiences of patients and family members. These studies were done either from the perspective of nurses, patients, and family members individually or between nurses and patients, nurses and family, and patients and family. There is a paucity of research studies in the literature conducted on the triad of nurses, patients, and family members looking at the experience of critical illness and their perspective on each other. The majority of the studies related to critical illness and the families are also quantitative, with a focus on selected areas of concern and/or selected individuals in the family (Eggenberger & Nelms, 2007). Studies that describe the experiences of the triad of nurses, patients, and family members during critical illness in the ICU reveal a gap in the literature that is left unexplored and one that this researcher sought to fill.

The purpose of this study was to understand the experiences of patients, their family members, and the nurses in the intensive care unit and to confirm and/or disconfirm the Roy adaptation model (RAM). Exploring the experiences of patients in the ICU and their family members, as well as the nurses who care for them, will provide insights into the lived experiences of critical care within the context of critical illness and hospitalisation in a high technology environment. Enhancing understanding of lived experience of critical illness will likely provide insights into care provided by nurses to patients who are critically ill and their families. From the perspective of the RAM, knowledge based on experiential descriptions, essential relationships and meaning structures from the persons living the experience can be used to enhance understanding of theoretical perspectives that guide practice and research.

NURSING PERSPECTIVE

The Roy Adaptation Model (1999) provided the overall framework and direction for this research study. Roy (2009) views the person as an holistic and adaptive system in constant interaction with the changing environment from which they receive stimuli. The person is an adaptive system, with cognator and regulator subsystems acting to maintain adaptation in the four adaptive modes. Critical illness in the ICU may be regarded as the focal stimuli that affect the cognator (psychologically based) and regulator (physiologically based) subsystems. The four modes are: physiologic, self-concept, role function, and interdependence. Critical illness in the ICU affects all four modes of adaptation. The responses in the four modes are also interrelated. Behaviour, in any mode, can have an effect on, or act as a stimulus for, one or all of the other modes.

The physiologic mode of adaptation is associated with the way people, as individuals, interact as physical beings with the environment. Behaviour in this mode is the expression of the physiologic activities of all the cells, tissues, organs, and systems of the human body. The underlying need for the physiologic mode is physiologic integrity (Roy, 2009). Intensive care serves the most acutely ill of hospital patients or those with critical illness. Critically ill patients experience multiple, complex medical problems that involve oxygenation, nutrition, elimination, activity and rest, and protection. Each of these physiologic needs involves integrated processes. They also present with problems in physiologic adaptation including neurologic and endocrine function, the senses, fluid, electrolyte and acid-base imbalance. The ultimate outcome for an admission to ICU can be healing, survival, disability, or death.

Self-concept according to Roy (2009) is the composite of beliefs and feelings that an individual holds about him or herself at a given time. The components of the self-concept mode are the physical self (including body sensation and body image), and the personal self (self-consistency, self-ideal, and moral-ethical-spiritual self). Critical illness may affect the critically ill's self-concept. From the perspectives of the individual, the role function mode focuses on the roles that the individual occupies in the society. The complexity, severity and impact of critical illness on an individual frequently curtail the performance of roles in the family, activities and employment. In the family, these roles relate to activities such as earning a living, maintaining a place to live and child rearing (Roy, 2009). The entire family is affected when a family member is in an ICU.

The concept of interdependence is implicit in the discussion of the organisational nature of family systems. Individual family members and the subsystems that comprise the family system are mutually influenced by, and are mutually dependent upon, one another (von Bertalanffy, 1968; Whitchurch & Constantine, 1993). What happens to one family member,

Roy (2009) emphasised that the interdependence mode is the category of human responses that focuses on interactions related to the giving and receiving of love. The family provides the foundation by which the person establishes interaction with others. This is accomplished through the teaching of effective communication skills and the give and take of love, respect, and value within the family. A person's awareness of self in relation to others is developed and cultivated in this primary support group. ICU patients are sometimes unable to speak due to oral intubation and alteration in level of consciousness or neurological changes related to medications and acute critical condition. This affects communication and relationships with family members and friends.

From the perspective of the Roy Adaptation Model, the human systems are affected by and, in turn, affect the world around and within. This world is called environment. In this study, the ICU environment, nurses, physicians, and family members comprise the patient's environment during critical illness in which stimuli are received. In the ICU, there is an implicit connection between the physicians, nurses, and family members. The ICU works as a whole because of the interdependence of the physicians, nurses, and family members. The ICU, as a system, is also a constantly changing situation where the patients are admitted and discharged, and where the condition is also constantly changing.

The four modes of adaptation and the concept of environment (Roy, 2009) provided a lens through which to interpret findings from the participants' experiential descriptions of their lived intensive care unit experience.

METHOD

Van Manen's (1990) qualitative phenomenological method was utilised for this study in order to describe the experiential meanings of essences, and meaning structures of the lived intensive care unit experiences of the fifteen participants during critical illness. According to van Manen (1990), phenomenological research may be seen as a dynamic interplay between six research activities or techniques, namely: (1) turning to the phenomenon which seriously interests us and commits us to the world, (2) investigating experience as we live it rather than as we conceptualise it, (3) reflecting on the essential themes which characterise the phenomenon, (4) describing the phenomenon through the art of writing and rewriting, (5) maintaining a strong and oriented pedagogical relation to the phenomenon, and, (6) balancing the research context by considering parts and whole.

The utilisation of van Manen's (1990) method provided this study with a structure needed to analyse the data in depth and identify the important elements and relationships critical to the phenomenon of choice as perceived by the participants in this research. The exploration of the meaning of the ICU experience as perceived by patients, their family members, and the nurses during critical illness enhanced the existing body of nursing knowledge that may improve the care of the critically ill, thus contributing to good patient outcomes.

Participant Selection and Setting

Participants in this study were five nurses, five patients and five family members. The nurse participants were one man and four women who were between the ages of 25 to 60 years, held a bachelor of science in nursing, were registered nurses in New York State, and had at least two years of critical care experience in the ICU. Patient participants included four men and one woman ranging in age from 22 to 70 years, who were acutely, critically ill patients in the ICU prior to their transfer to the regular, medical floor. The patient's diagnosis was not a criterion for participant selection. The sample of family members included the patients' spouses, a daughter, and a patient's mother who were at the bedside most often in the ICU. The family members included one man and four women, ranging in age from 22 to 70 years. Approval for the study was obtained from the institutional review board at a university and the institution where the study took place. All participants voluntarily signed an informed consent after the researcher gave a thorough explanation of the study purpose, procedures, risks, and benefits.

Data Collection and Procedure

The data was collected over 5-6 months during the year 2008. Data collection for the nurses, patients and family member participants consisted of two one-hour audiotaped interviews that took place in a private room on the medical floors where the patients had been transferred. The second interview was conducted four days after the first interview. The interview style was based on van Manen's unstructured or open-ended interview. At the end of every interview, the participants were given the opportunity to review the data. They were asked to add to or modify the collected data.

Data Analysis

Data analysis was accomplished using van Manen's (1990) holistic, selective, and detailed line-by-line approach. After a thorough analysis of the data from each individual interview, the researcher began to classify the codes across the interviews. Codes were then further analysed as to whether they were essential and relevant to the specific phenomenon of the study. It was apparent that the data related to the participants needed to be grouped accordingly because the perception of their experiences pertained to the ICU experience per se and their experiences of the other (i.e. for patients and family members, this was the patient's nurse, while for the nurse, this was the patient and their family members). The only data included in the analysis were the participants' experiences of the other, as these were the only ones that were included from each category, as these directly related to the phenomenon of the study. Further phenomenological thematic analysis was done in an effort to illuminate the essence of the experiences of the participants of the other. Responses from the three categories of participants were noted to be interrelated and integrating. Repetition of themes from and across each category was evident. Triangulation of the data from the three categories of participants yielded five integrating common themes. Each theme contained several descriptors. All descriptors were considered essential to achieve understanding of the phenomenon.

FINDINGS: THEMES

The five common integrating themes were: family as a unit, physical care and/or comfort, physiological care, psychosocial support, and transformation.

Common Integrating Theme 1: Family as a Unit

The nurses in the study perceived the patients and their families as one unit. Patients and families viewed the nurse as part of the family. The descriptors for this theme were three: involve the family in the plan of care or as an active participant, allow the family to bring pictures of the patient, and, empathise with the family.

Descriptor 1: Involve the family in the plan of care

One of the nurse participants emphasised that allowing family members in the care of the patient is beneficial when she said:

If the patient's family is willing to assist and help in taking care of the patient, you encourage them to help, like wiping, cleaning the face, and eyes, and also massage the patient... Give them instructions and encouragement that they can talk to the patient... Encouraging the family to participate in the care is good especially if the patient is intubated, connected to all the wires, catheters and tubes.

Descriptor 2: Allow family to bring pictures of the patient

Allowing family members to put the patient's pictures in the room will help the nurse and also the family to view the patient as one of them and not another separate entity. A nurse described her feelings on this when she said:

Sometimes patients are unrecognisable because of their critical condition. They really look bad and 'messy', I remember the family member put a picture in the patient's room. By all means allow the family to put a picture of the patient in the room. This way, you picture the patient as a person that you're taking care of and not just a sick patient connected to all these 'machines'. You are taking care of this different looking person rather than a sick guy who you cannot recognise with no face.

From the perspective of the Roy Adaptation Model, the concept of family as a unit is related to the scientific assumptions of the model on environment integration. Consciousness and meaning are constitutive of person and environment integration (Roy, 2009). The critically ill patient (person) is a part of the family first, the community, as well as society as a whole. The person has a need to achieve relational integrity using the process of affectional adequacy as the giving and receiving of love, respect and value, effective relations, and communication. This specific need of the person is interdependence, an important mode in the model, which can help in adaptation, thus achieving wholeness.

The ICU experience for all the participants in this study as evidenced by behaviours is interdependence. The nurse learns that people never act in isolation but are influenced by the environment and, in turn, affect the environment (Roy, 2009). The nurses, physicians and family members and the intensive care unit are considered the environment for this study. They are interdependent with one another. The patient's behaviour and adaptation during critical illness is greatly affected by the influence that the family fosters in them. Nurses, patients, and family members are intertwined through the care that the nurse provides to fulfil a purpose, which is maintaining, restoring, and improving health.

Common Integrating Theme 2: Physical Care/Comfort

Nurses, patients and family members perceived physical care and/or comfort as one of the priority needs of critically ill individuals in the ICU. The participants in this study identified bathing the patient, oral care, encouraging touch, treating the pain, and ensuring that the patient's room is clean, as ways of providing physical care to the critically ill.

Descriptor 1: Bathing the patient

Nurses in this study unanimously articulated that providing comfort to patients is one of the basic needs that should be met when caring for the critically ill patient in the ICU. One nurse stated:

I am always meticulous with my care to patients because I see family members and relatives visit... I don't want that my patient smells, so I always give them a bath. I think one of the most important thing is their physical care... I would always think that however I would take care of this patient is how I would be taken care of when I get there. So I give them a bath and clean them.

Protection is the fifth basic need identified in the physiologic mode. Roy (2009) listed a typology of indicators of positive adaptation of the individual according to the four intersecting modes. The two indicators for the need of protection that relate to bathing and having a clean environment are having intact skin and adequate secondary protection for changes in skin integrity. Bathing the patient and ensuring that the room is clean are activities that nurses perform to help patients maintain an intact skin.

Descriptor 2: Rendering oral care

Oral care was identified by the participants of this study as an aspect of physical care that should be rendered to critically ill patients. Giving oral care not only affords physical comfort for patients, but is also a means for the nurse to assess the condition of the oral cavity. Roy (2009, p. 134) said, 'Appraisal of the oral cavity, that is, the lips, teeth, gums, and tongue is useful in determining the individual's nutritional health and in identifying deficiencies'. One nurse who values oral care on her patients reflected on her personal and professional experiences on this aspect of care when she said:

I am very particular with oral care on patients. I remember when my father was sick and he had to go for surgery. I saw him in the Operating Room after the procedure. Oh my Gosh, he really had very bad breath! The surgery took a long time, but it didn't matter, I had to kiss my dad... So the nurse told me that I could see him in few minutes... Then I saw him later and he was all so smelling good... He was all clean. I was so impressed... that's why I said from now on, even though I am already meticulous, I will be more meticulous with my care especially oral care.

Descriptor 3: Encouraging touch

Encouraging family members to hold the critically ill patient's hand was identified by nurses as one valuable way of providing comfort to them. Nurses found that touch makes the patients feel that they are valued and make them aware of their family members' presence at the bedside. Touch is not limited to the family members. Nurses should also try to make the patient feel that they are not alone by holding their hand while at the same time interacting and talking to them. A nurse spoke about encouraging touch when she said:

It's important in Critical Care that you encourage family members to hold the hands of the patient especially when they are talking to them. As a nurse, I usually do this to my patients. When I was a medical-surgical nurse, I had a demented and confused patient who said to me, 'Just hold my hand and I'm going to be alright'. That's something that I will always remember and I believe that touching them and trying to let them feel that there is another person with them is good, so that they don't feel alone and somebody is trying to help them. It's like an assurance that somebody will help them and everything will be alright.

The participants of this study perceived that encouraging touch and treating the pain are two ways of ensuring physiologic adaptation involving the senses. The two indicators identified by Roy (2009) involving the senses that relate to the findings of this study, are effective processes of sensation and effective coping strategies for altered sensation. Critically ill patients often have altered neurologic and sensory functioning. Most patients are also unable to talk and move. Encouraging touch by holding the patient's hands will help as an effective coping strategy for family members.

Descriptor 4: Treating the pain

Relief of pain was perceived as an important aspect of physical care and comfort to critically ill patients in the ICU. One nurse summarised her experience of providing comfort when she said:

We get all kinds of patients, all kinds of diagnoses—may it be trauma, post-operative or acutely critically ill patients. Pain is pretty much a very common problem among these patients. Even an 'intubated patient' can be in pain. Nurses should be able to assess them well for they are unable to verbalise. Patients should be comfortable and not need to suffer of pain. We won't be able to do much on patients if they are in pain, so it is one of the priorities that we should deal with in ICU.

Roy (2009) considers pain as a compromised process related to sensation. The theorist emphasised that pain deserves special consideration because the phenomenon of pain is one of the most significant areas of nursing practice. Roy (2009, p. 299) articulated that, 'For the novice nurse, the ability to provide comfort and alleviate suffering is a fundamental component of nursing responsibility. The experienced nurse never forgets this responsibility and strives throughout a career to improve abilities to provide comfort-giving measures.' Treating the pain was identified by the participants of this study as one way of providing physical care to critically ill patients.

Roy (2009) further explained that pain can be a frightening, frustrating, and at times overwhelming experience, not only for the suffering individual, but also for others involved in the situation (i.e. nurses and family members). Treating the pain, as verbalised by the participants of this study, can be done by giving medications, family presence, touch, and reassurance. Family presence, touch and reassurance are behavioural-cognitive approaches to pain relief (Roy, 2009). Feeling confident regarding what is effective nursing care for people experiencing pain helps alleviate the nurses' own apprehensions.

Common Integrating Theme 3: Physiological Care

The participants of this study perceived physiological care as a basic and priority need of patients in the ICU. In addition to taking vital signs, all participants identified giving medications and feeding patients as other ways of providing physiological care.

Descriptor 1: Taking vital signs

The intensive care unit is one area that caters to critically ill patients with complex medical problems and multiple co-morbidities. Taking vital signs is one of the most important means that nurses use to monitor these patients' frequently changing and labile conditions.

According to Potter and Perry (2009), vital signs are a quick and efficient way of monitoring a patient's condition or identifying a problem, and evaluating the patient's response to intervention. Vital signs in critical care not only include blood pressure, pulse, heart rate, respiratory rate, and oxygen saturation, but other hemodynamic parameters that relate to the patient's complex medical conditions.

A mother of a 19-year-old male patient who was transferred to an ICU from the operating room talked about her experience of the importance of vital signs monitoring on post-operative patients like her son:

When my son was in ICU, they treated him very good. They were very attentive to him so it was no problem. They monitored his blood pressure frequently. It was very important that they monitor his blood pressure, pulse and even his breathing. They made sure his blood pressure is stable because it could change if he had any unusual bleeding.

Descriptor 2: Giving medications

Administering medications to acutely critically ill patients in the ICU is one crucial role that nurses in this study identified as another component in the provision of physiological care to patients. One nurse summarised her feelings in fulfilling this beneficial role:

My experience in ICU is both pleasant and rewarding. I know that when I give medications it will work especially the critical cases. Patients who I have provided care for a long time and I see them improve, I feel good. It is rewarding because you see that medications work, and nursing care work. Whatever you give to them you see good results. You say to yourself that you did something. I think it matters a lot.

Critically ill patients have multiple complex medical problems, necessitating interventions by the critical care team. Administering medications is a nursing intervention that is provided to ICU patients. For example, fluid and electrolyte imbalance may be regulated by the administration of medications. It is not unusual for a critically patient to be receiving a continuous intravenous vasopressor to increase blood pressure, an antibiotic, a corticosteroid, and an analgesic all at the same time (Roy, 2009). Medication administration is one of the most important roles of critical care nurses.

Descriptor 3: Feeding the patients

Nutrition is one aspect of care for critically ill patients which is multidisciplinary. The physicians, nurses, and nutritionists are all involved in ensuring that patients are nourished. Nurses also have an important role in meeting this basic physiologic need of patients. One nurse spoke about the relationships between team members in fulfilling this common goal:

Of course we monitor our patients, take their vital signs and other hemodynamic parameters. We treat them by giving medications and we insert invasive lines to be able to administer these medications. No matter how we do all these if we don't feed our patients, the care won't be that holistic because we have to meet first the very basic need of our patients which is food, we have to feed them. That's why the nurse should coordinate with the physician and the nutritionist to have a plan for patients to be fed early on unless it is contraindicated.

Roy (2009, p. 90) stated, 'The need for nutrition involves a series of integrated processes associated with digestion; that is, the ingestion and assimilation of food and metabolism, provision of energy, building of tissue, and regulation of metabolic processes'. Adequate nutritional intake is important in maintaining body functions, healthy tissues, and body temperature, to promote healing, and to build resistance to infection. The nurses, patients, and family members perceived that feeding the patients in the ICU is a vital way of providing them with nutrition that would help in the healing process. Roy (2009) articulated that metabolic and other nutritive needs should be met during altered means of ingestion.

Common Integrating Theme 4: Psychosocial Support

Nurses, patients and family members identified psychosocial support as a vital component of critical care. Communication was identified as the precursor to providing psychosocial support. The descriptors for psychosocial support include emotional support that includes encouragement, spiritual support, sensitivity to patients' and family members' needs, treating the patient and family with respect, offering translation services and referrals to social service.

Roy (2009) asserted that there are times in each person's development that radical life changes occur. These include events such as a serious or critical illness, and change in support systems. They have a great impact on the individual's interdependence and adaptation as a whole which in turn affects the person's self-concept and role function. Significant others (i.e. family members) are the individuals to whom the most meaning or importance is given. Support systems are persons (i.e. nurses, and family members), groups, and organisations (i.e. the healthcare team in the ICU) with which the patient associates in order to achieve affectional adequacy during critical illness.

A descriptor that was identified as one way of providing psychosocial support in this study is spiritual support. The nurses, patients, and family members perceived spiritual support as one aspect of care that is important if we are to be holistic in the care we provide. A nurse spoke about being proactive in rendering care that includes spiritual support:

Nurses should offer services to family members, not just services regarding the care, but spiritual-offer whatever the hospital has. Caring is not only physical, but also spiritual-wise. Sometimes I forget to do that. Those with dying patients let them know that we have a chapel and that's there whatever religion they have. I think we should be doing that more.

One of the components of the personal self in Roy's (2009) self-concept mode is moralethical-spiritual. This includes the belief system and an evaluation of who one is in relation to the universe. The theorist described her philosophic assumptions of the model that relates to spirituality as follows: (1) persons have mutual relationships with the world and God, (2) God is intimately revealed in the diversity of creation and is the common destiny of creation, and (3) persons use human creative abilities of awareness, enlightenment and faith. She holds the belief that individuals stand united in common destiny and find meaning in mutual relations with each other, the world, and a God figure.

Common Integrating Theme 5: Transformation

The theme transformation was made clear as participants expressed their perceptions. Subsequent descriptors from each category of nurses, patients, and family members were illuminated. Descriptors for transformation among nurses were: 'the experience made me grow as a person', 'the experience makes me more enthusiastic for learning', and, 'realisation that good care equals family satisfaction, thus my own personal satisfaction'.

Descriptors for Transformation among Nurses

Descriptor 1: 'The experience made me grow as a person'

The nurses perceived that the ICU experience made them grow as a person. This is evident in one nurse's narrative:

My experience in ICU is pleasant and gratifying. The whole overall experience I will never forget, wherever my career will go. For 17 years that I've been there, I will never forget my experiences with patients, with doctors, and family members. I think overall it has made me grow, it made me grow as a person and not just that it has made me grow, it has made me realise the value of caring.

Descriptors for Transformation among Patients

The patients participating in this study found meaning from the critical care experience in the ICU by realising that the experience was: 'a wake-up call', 'it was the longest days of my life,' and, 'I am thankful to be alive'.

Descriptor 1: 'A wake-up call'

The patients in this study perceived that the critical care experience was for them a 'wakeup call'. One Hispanic patient who was admitted for emphysema, asthma, respiratory failure and poly-substance abuse, reflected on his experience in the ICU as he stated:

Being in the ICU with the 'tube' but I was awake, I feel like I'm 'messed-up' because of what I did. I used drugs that I got 'messed-up'. They told me that I almost died. I know that it was not from my emphysema or asthma but because of the drugs. I was partying and having fun! After being in ICU again after many times of being there, thank God I feel much better now. I realised now not to take life for granted and that I was thinking, meaning that I should behave. 'Behave Richard' I said to myself.

Descriptors for Transformation among Family Members

Descriptor 1: 'The experience made me emotionally empowered'

The participants in this study perceived that having a critically ill family member in the ICU made them emotionally empowered. This was evident in one patient's daughter's narrative:

Having a family member in the ICU emotionally-wise, I have to be the stronger one in the family. I always have a smile and letting them know, reassuring them that things are going to be fine... because you try to be strong for everybody else... So you want to reassure them... I have to hold everything together especially we all grew up together and my mother, my father brought us up always as being close. I think that's something that you don't want your loved ones to hurt.

Roy (2009), in her recent work, takes into account that the twenty-first century is a time of spiritual vision, transition, and transformation. It is a reorientation of self, self in roles and self in relation to significant others. Humans, by their decisions, are accountable for the integration of creative process (Roy, 2009). In the face of a critical illness requiring care in an ICU, transformation, which involves self-analysis, re-evaluation, self-restructuring, selfintegration, and self-re-organisation, indicates an integrated and high level of adaptation. Adaptation in an ICU, based on the experiences of patients, their family members, and nurses integrates physical/physiological, psychosocial support and family as a unit, resulting in transformation. These processes of transformation were noted in the three categories of participants: namely, the patients, their family members, and the nurses. Each category of The critical care nurses were the instrument for transformation to occur among patients and family members during critical illness in the ICU, through the nursing care they provided and by promoting adaptation. Nurses believed that human systems function in a holistic manner with each aspect related to and affected by the other. Nurses also were aware that they are part of the critically ill patient's environment. The interaction of this human adaptive system and the environment (i.e. nurse, patients, family members, and the healthcare team in the ICU) was a reflection of adaptation towards the goal of becoming integrated and whole. Nurses accepted and recognised the importance of family members, significant others, and support systems to the critically ill patients. They fostered interdependence among the patients and family members. They also allowed them to be active participants in the provision of care and supported them during this time of crisis to the family. During this process, the nurses themselves experienced transformation.

SUMMARY, DISCUSSION AND RECOMMENDATIONS

Consideration of each of the themes that emerged from descriptions of the intensive care unit experience of patients, their family members and nurses who participated in this study led to the interpretations and conclusions that clearly reflected Roy's (2009, p. 26) conceptualisation of adaptation as 'a process and outcome whereby thinking and feeling people, as individuals or in groups use conscious awareness and choice to create human and environmental integration'.

This study found that the ICU experience for all participants was interdependence. The nurses, patients, and family members are one or intertwined. Adaptation in the ICU, as experienced by the participants from three categories, integrates family as a unit, physical care and/or comfort, physiological care and psychosocial support resulting in transformation. The themes not only illuminated the RAM modes but also the concept of transformation as the highest goal of adaptation.

There is a plethora of studies in the literature on how nurses and other health care professionals can meet the needs of the patients and family members in an ICU during critical illness. Findings from these studies vary but the aim is generally to be able to provide quality care while also considering the existential needs of the patients and their families. A major contribution of this study is the triangulation of data yielding common themes. Repetition of themes from and across each category of participants was noted during coding and data analyses that led to the common themes illuminated in the data.

The Roy Adaptation Model (Roy, 2009) is a guide for nurses to identify and assess behaviours in each of the four modes of adaptation, namely: physiologic, self-concept, role function and interdependence. The findings from this study support the need for comprehensive assessment of the critically ill patients and their family members in the ICU during critical illness, thus enabling family-centred care by nurses. This phenomenological study shed light on the meaning of the intensive care unit experience during critical illness from the perspectives of patients, their family members, and the nurses. Although results of qualitative studies should not be generalised to broader populations, this researcher believes that the knowledge gained from this study may be of benefit to nursing practice, education, and future research. This study supports the tenets of family-centred care, which mandates the purposeful inclusion of the family in all aspects of care such as including them in inter-

disciplinary rounds and discharge planning. Implications from the data also suggest flexible and open visitation and family presence during emergency and invasive procedures.

This study should be replicated with a larger number of participants in different patient populations. Research studies using qualitative research method like phenomenology may help uncover new meanings known only to the individuals living the experience. The interrelationships and associations of the Roy model modes of adaptation between the themes illuminated in this study can further be explored by conducting more qualitative and quantitative studies about the meaning of critical illness for the triad of patients, their family members and nurses in the ICU.

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